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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/604,863	08/22/2003	Thor Simon	TLSI.P001-2	1862
57380	7590	10/17/2007		
Oppedahl Patent Law Firm LLC			EXAMINER	
P.O. BOX 4850			HYUN, SOON D	
FRISCO, CO 80443-4850				
			ART UNIT	PAPER NUMBER
			2616	
			NOTIFICATION DATE	DELIVERY MODE
			10/17/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket-oppedahl@oppedahl.com

Office Action Summary

Application No.

10/604,863

Applicant(s)

SIMON, THOR

Examiner

Soon D. Hyun

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-35 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4, 6, 7, 16-18, 21, 23-26, 28, 31, 33 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al U.S. Patent Number 5,974,052.

Re Claims 1, Johnson et al teaches in fig. 1, SS7 FRAD 101(a first apparatus) coupled to the SS7 FRAD 103 (a second apparatus) via a frame relay network 102 (a packet switching network) wherein 101 and 103 both includes respective ports for sending/receiving common channel signaling data for telephone call processing. Fig. 8 teaches the primary functional module of the SS7 FRAD and includes SS7 Rx 810 (means receiving, respective port) for receiving SS7 signaling and FR Tx 820 for encapsulating the SS7 into frames for transmission over the network 102. Each of the SS7 FRAD receives a conventional frame (See fig. 3) that includes a flag and the CRC. Each SS7 FRAD determines (extracting said common channel signaling data) which signaling units are essential and which are redundant or unnecessary (stripping flag octet and CRC) for reconstruction of the SS7 data stream at a destination FRAD

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(See col. 5, lines 45 +). As Johnson et al teaches the frame relay network, Johnson et al fails to explicitly teach the packet switched communication channels is a type routing message over a arbitrary path comprising of hops and the final hop of a path is not fully known in advance. However, Johnson et al teaches typical data source protocol supported by the FRADS includes TCP/IP (See col. 2, lines 5-19). It is known that the TCP/IP protocol can includes an arbitrary path with multiple hops with final hop of a path that is not fully known in advance. One skilled in the art would have been motivated to modify the frame relay network of fig. 1 with TCP/IP network to support ubiquitous VOIP application of the Internet. Therefore, it would have been obvious to one ordinary skilled to modify the frame relay network with TCP/IP network.

Re Claims 4 and 31, refer to Claim 1.

Re Claims 6, 23, and 33, refer to Claim 1, wherein one skilled would have been motivated to be compatible with a known standard such as MTP, Level 2 protocol.

Re Claim 7, refer to Claim 1, wherein the means performs the claimed steps.

Re Claims 16-18, 21, and 24-26, refer to Claim 1, Examiner takes an Official Notice that reverse transforming of data are known in the art to provide security/compression. Hence, one skilled in the art would have been motivated to use any known encryption protocols to support security over the Internet.

Re Claims 28 and 34, refer to Claim 1, Johnson et al further teaches each SS7 FRAD identifies and determines distinct types of signaling units (See col. 5, lines 1-25) whereby the processor 602 (See fig. 6) compares each signaling units (a first and

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second point codes), i.e., the processor can compare the LSSUs (link status signal unit: point codes) from the SS7 facility side.

4. Claims 2, 3, 5, 8, 19, 20, 22, 27, 29, 30, 32, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al U.S. Patent Number 5,974,052 in view of Jonas et al U.S. Patent Number 6,137,792.

Re Claims 2, 8, 19, 27, 29, and 35, Johnson et al teaches the SS7 FRAD includes a SS7 FRAD MGT 806 for monitoring a fault condition (means for testing the packet switched communication channel) between the FRAD through the exchange of status messages (See col. 8, lines 1-19). Johnson fails to explicitly teach, "responsive to a failed test....establishing the on demand communication channel...transmitting said common channel signaling data). However, Jonas et al teaches fig. 1, two router coupled via Internet 40 and Bypass Network 30 (on demand communication channel) whereby when a router determines that the path in the Internet poses excessive delay, the router transmits setup message (transmitting said...signaling data) via circuit switch network (See col. 5, lines 53 +). One skilled in the art would have been motivated to include this teaching in Jonas et al into the teaching of Johnson for reliability. Therefore, it would have been obvious to one ordinary skilled to combine the references.

Re Claims 3, 20, and 30, refer to Claim 2, wherein the parameter for switching is excessive delay in the packet network.

Re Claims 5, 22, and 32, refer to Claim 2, wherein the router can include an ISDN adaptor (See col. 4, lines 21-36).

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5. Claims 9-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson et al U.S. Patent Number 5,974,052 in view of Boden et al U.S. Patent Number 6,167,444.

Re Claims 9, 13, and 14, refer to Claim 1, Johnson et al teaches that the FRADs are at distant physical locations wherein each FRAD include a routing table for routing the SS7 messages. Johnson et al fails to explicitly teach the "computational means" and means for updating the respective routing table. However, Boden et al teaches RIP protocol (Computational means and means for updating) operating in the gateway for determining the least cost distance and updating the routing table (See col. 4, lines 19 +), wherein the RIP exchanges routing information (update message). One skilled in the art would have been motivated to include the RIP protocol into the FRAD of Johnson et al to enable updating of the routing table to perform least cost routing. Therefore, it would have been obvious to one ordinary skilled to combine the references.

Re Claims 10, refer to Claim 9, Examiner takes an Official Notice that cryptographic means of data are known in the art to provide security. Hence, one skilled in the art would have been motivated to use any known encryption protocols to support security over the Internet.

Re Claims 11 and 12, refer to Claim 9, wherein the SS7 Rx is a synchronous port and the WAN is a packet switched network.

Re Claim 15, refer to Claim 14, wherein the RIP protocol updates the routing table via an exchange of routing information, whereby the gateway selects the

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respective ports based on the updated routing table to route the message over the Internet.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Soon D. Hyun whose telephone number is 571-272-3121. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



S. Hyun
10/9/2009



CHI PHAM
SUPERVISORY PATENT EXAMINER

10/11/09